

Application Number 09/737,540
Amendment dated March 25, 2004
Reply to Office Action of December 30, 2003

Amendments to the Claims

Please cancel claims 7 and 10 through 17.

Please add new claims 18 through 25.

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims

1. (Currently Amended) A wiring of a semiconductor device comprising:
a first conductive layer formed on a semiconductor substrate;
a first insulation layer formed on said first conductive layer, wherein the first insulation layer has a scratch on a surface thereof after the surface is planarized by a CMP process
planarized by a CMP process and having a scratch on a surface thereof;
a second insulation layer formed immediately over on said first insulation layer to cover
the scratch formed on the surface of the and contacting said first insulation layer;
a second conductive layer contacting said first conductive layer through a via hole formed in said first and second insulation layers, said second conductive layer being a single conductive layer; and
a third conductive layer formed in a groove formed in said second insulation layer,
wherein said groove has a depth less than a thickness of said second insulation layer.
2. (Original) A wiring of a semiconductor device as claimed in claim 1, wherein said first and second insulation layers are formed from a same insulation material.
3. (Original) A wiring of a semiconductor device as claimed in claim 1, wherein said second conductive layer comprises a plug filling said via hole.

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4. (Original) A wiring of a semiconductor device as claimed in claim 1, wherein said first conductive layer is an impurity doped region on said semiconductor substrate.

5. (Original) A wiring of a semiconductor device as claimed in claim 1, further comprising:

a third insulation layer formed on said second insulation layer, having a second via hole therein; and

a fourth conductive layer formed on said third insulation layer, contacting said third conductive layer through said second via hole.

6. (Original) A wiring of a semiconductor device as claimed in claim 5, wherein said fourth conductive layer is a bit line formed from a conductive material selected from a group consisting of tungsten, aluminum and copper.

7. (Canceled)

8. (Currently Amended) A wiring of a semiconductor device as claimed in claim 1 [[7]], wherein said first and second insulation layers are formed from a same insulation material.

9. (Currently Amended) A wiring of a semiconductor device as claimed in claim 1 [[7]], wherein said second conductive layer is formed from a metal selected from a group consisting of tungsten, aluminum and copper.

10.-17. (Canceled)

18. (New) A wiring of a semiconductor device comprising:
a first conductive layer formed on a semiconductor substrate;

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a first insulation layer formed on said first conductive layer, a top surface of the first insulation layer being planarized by a CMP process;

a second insulation layer formed immediately over said first insulation layer and contacting said first insulation layer;

a second conductive layer contacting said first conductive layer through a via hole formed in said first and second insulation layers, said second conductive layer being a single conductive layer; and

a third conductive layer formed in a groove formed in said second insulation layer, wherein said groove has a depth less than a thickness of said second insulation layer.

19. (New) A wiring of a semiconductor device as claimed in claim 18, wherein said first and second insulation layers are formed from a same insulation material.

20. (New) A wiring of a semiconductor device as claimed in claim 18, wherein said second conductive layer comprises a plug filling said via hole.

21. (New) A wiring of a semiconductor device as claimed in claim 18, wherein said first conductive layer is an impurity doped region on said semiconductor substrate.

22. (New) A wiring of a semiconductor device as claimed in claim 18, further comprising:

a third insulation layer formed on said second insulation layer, having a second via hole therein; and

a fourth conductive layer formed on said third insulation layer, contacting said third conductive layer through said second via hole.

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23. (New) A wiring of a semiconductor device as claimed in claim 22, wherein said fourth conductive layer is a bit line formed from a conductive material selected from a group consisting of tungsten, aluminum and copper.

24. (New) A wiring of a semiconductor device as claimed in claim 18, wherein said first and second insulation layers are formed from a same insulation material.

25. (New) A wiring of a semiconductor device as claimed in claim 18, wherein said second conductive layer is formed from a metal selected from a group consisting of tungsten, aluminum and copper.